Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational, Technical, and	)	
Spectrum Requirements for Meeting Federal, State	)	WT Docket No. 96-86
and Local Public Safety Agency Communications	)	
Requirements Through the Year 2010	)	

To: The Commission

COMMENTS OF THE ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS-INTERNATIONAL (APCO) IN RESPONSE TO SECOND NOTICE OF PROPOSED RULEMAKING

December 24, 1997

SUMMARY

The Commission correctly recognizes that regional planning is the only appropriate method of assigning and managing public safety use of the 746-806 MHz band. Regional committees, operating in conjunction with a national planning committee, are best equipped to determine where and to whom frequencies in the 746-806 MHz band should be assigned. Successful regional planning will require early and full participation of the frequency coordinator and its local advisors, who provide invaluable knowledge and access to data and resources. The coordinator must also maintain a single database accessible by all planning committees. Finally, there must also be a funding mechanism to cover basic operating expenses of the regional committees.

APCO should be designated as the coordinator for the 746-806 MHz band as it is the only coordinator that represents all public safety services, has experience with the regional planning process, has coordinated large, multi-agency 800 MHz systems, and has local advisors in each planning region. Furthermore, APCO is prepared to devote substantial resources to the planning process, including developing and maintaining a planning database and providing technical and financial support to the regional planning committees.

The Commission appears to overstate the amount of spectrum from the 746-806 MHz band which should be allocated only for interoperability purposes. While most of the spectrum should be assigned and used in a manner that promotes interoperability, allocating more than approximately ten percent of the 24 MHz for interoperability use only would undermine overall public safety communications.

The advent of digital communications requires that there be a digital interoperability standard. APCO joins with others in supporting adoption of the Project 25 Phase I (12.5 kHz FDMA) common air interface as the digital baseline for interoperability. To start anew with a different standard would cause unacceptable delays.

Licenses in the 746-806 MHz public safety spectrum must be limited to entities that are "Public Safety Services," and with few exceptions, to state and local governments. To the extent possible, the Commission's rules regarding eligibility should reflect the definitions adopted by the Public Safety Wireless Advisory Committee. However, the Commission should defer to regional planning committees in the first instance as they are in a far better position than the Commission to determine to whom channels should be assigned in each particular region.

The Commission rules governing interference between public safety users and television stations need to be fashioned to maximize the extent to which spectrum can be made available for public safety use during the digital television transition period. Specifically, signal protection ratios should reflect propagation characteristics of the 746-806 MHz band, DTV protections should be tighter and include receiver standards, and public safety users should be able to go beyond mileage separation tables and demonstrate compliance with actual protection criteria.

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To: The Commission

COMMENTS OF APCO
IN RESPONSE TO
SECOND NOTICE OF PROPOSED RULEMAKING

The Association of Public-Safety Communications Officials-International, Inc. ("APCO") hereby submits the following comments in response to the Commission's Second Notice of Proposed Rulemaking in the above-captioned proceeding, FCC 97-373, released October 24, 1997.

APCO is the nation's oldest and largest public safety communications organization. Most of its 13,000 individual members are state or local government employees involved in the management, design, and operation of police, fire, emergency medical, local government, highway maintenance, forestry conservation, disaster relief, and other public safety communications systems. APCO is the FCC's certified frequency coordinator for 80% of land mobile channels allocated for public safety use, and is the sole coordinator for public safety channels in the 800 MHz bands.

The Commission's Second Notice covers a wide range of issues related to the allocation of 24 MHz for public safety services in the 746-806 MHz band. The National

Public Safety Telecommunications Council (NPSTC), of which APCO is a member, is filing detailed comments on those issues. APCO participated extensively in the development of the NPSTC comments, which it fully supports. APCO will focus herein on issues that NPSTC has not addressed, or which require additional explanation and discussion.[1]

APCO urges the Commission to move quickly, but carefully, to establish rules for the assignment and use of the newly allocated spectrum. As discussed below, APCO anticipates that it will have a significant role in implementing those rules and facilitating the planning, application, and approval process so that new public safety radio systems can be installed as quickly as possible. APCO represents all public safety communications users and is committed to ensuring that all of their interests receive fair and appropriate consideration. While APCO believes that it should be designated as the coordinator for the 746-806 MHz band, it will in any event work closely with all public safety organizations and agencies to achieve the common goal of efficient spectrum utilization that serves the public interest to the maximum extent possible.

I. REGIONAL PLANNING AND FREQUENCY COORDINATION

A. The Commission Should Mandate Regional and National Planning

APCO supports the use of a modified regional planning approach for the management of all 746-806 public safety spectrum and generally agrees with the Commission's proposals regarding regional planning as set forth in paragraphs 109-119 of

[1] NPSTC's charter requires support of a "consensus," rather than a majority, of its organizational members for it to make a recommendation to the Commission. That has limited NPSTC's ability to make recommendations on certain issues, despite broad support for certain proposals both within NPSTC and, more importantly, in the public safety community.

the Second Notice. Indeed, there does not appear to be any reasonable alternative to regional planning if the Commission is to ensure that spectrum is assigned efficiently and to the highest and best use. Without planning, frequencies will be assigned on a first come-first served basis, which might reward agencies that are quick to file applications, but that may not necessarily be the users with the most substantial needs. Furthermore, regional plans, supported by a strong but flexible national plan, will adapt to different specific spectrum requirements and unique geographic considerations around the country. In any event, it is unlikely that any other process could be established and made operational within the schedule mandated by Congress.

In addition to autonomous regional planning committees, there needs to be a national planning committee to provide certain uniform general guidelines and a model for regional committees to follow, if appropriate. Specifically, the national planning committee should establish guidelines for regional committee operation, adopt generic channel plans, develop and refine interoperability channel designations, adopt criteria and guidelines for use of "give-back" channels, and provide a vehicle for coordination of inter-region planning. The national committee (or a comparable body) should also serve as an "appeal board" for regional committee decisions, though, like an appellate court, it must have a narrow standard for review (e.g., whether a regional committee had failed to follow relevant guidelines or had acted in an arbitrary and capricious manner). Allowing every regional planning committee decision to be subject to "*de novo* review" would stall the planning process and the distribution of spectrum.

The core of the planning process must be at a regional level. It is there that public safety personnel will be able to develop localized plans that address their specific spectrum

requirements. Otherwise, each part of the country will be subject to the arbitrary "plain vanilla" plans developed at the national level. That approach ignores differences in current spectrum utilization, propagation, and congestion, as well as variations in the delivery of public safety services. Indeed, even within regions (most of which currently follow state borders) there is likely to be substantial variation (*e.g.*, urban and rural areas). Regional committees are far more likely than a national committee to understand and be able to address such differences. In addition, most interoperability issues are between and among agencies within the same region (*e.g.*, state, county, and local agencies), and decisions regarding the assignment and use of spectrum for interoperability purposes therefore need to be determined on a regional level.

Regional planning will also be critical in the near term as the amount of spectrum actually available for immediate public safety licensing will vary from region to region (and within some regions) until the end of the digital television (DTV) transition, when incumbent broadcasters on channels 60-69 vacate the band. Until then, regional committees will need to use creative planning to maximize use of the spectrum that is available. In some regions, there may need to be interim plans and assignments that will be replaced by permanent plans once all 24 MHz is free of broadcast use. This process will be difficult for the regional committees, but would be impossible on a national level.

The regional process must be open to all public safety agencies and special efforts should be encouraged to ensure that no one element (*e.g.*, police, fire, EMS, state government) dominates the process to the exclusion of others. In the past, travel requirements may have limited participation in some regional committees. However,

modern communications tools such as the Internet and teleconferencing should facilitate broader participation.

The planning process should begin with the existing 55 regional committees used for the 821 MHz band, which already exist and have developed years of experience and expertise that will be invaluable in planning the 746-806 MHz band. While some modification may be appropriate (*e.g.*, to combine some regions and/or alter regional boundaries), creating entirely new committees and procedures would be a waste of time and resources and would increase the burdens on local public safety personnel and agencies.

The regional committees, in conjunction with the national committee, should be involved in the planning and assignment of both interoperability channels and "general use" public safety channels. Each region should have a number of interoperability channels dedicated to each individual service and utilized in a manner similar to that used in many of the current plans for the 821 MHz band, where channels are often assigned for day-to-day use with an ascending order of priority.

B. Successful Regional Planning Requires Extensive Participation by a Frequency Coordinator.

A critical element of the regional planning process is ongoing participation by the frequency coordinator and its local frequency advisors. In the 821 MHz band, where APCO is the sole coordinator, local APCO frequency advisors facilitated the initial formation of the regional committees.[2] The local advisors continue to be key players in

[2] The local APCO frequency advisors are employed by (or, in a few instances, are retired from) public safety agencies, and volunteer to help APCO's professional coordination department to recommend frequency assignments to applicants in order to avoid harmful interference and to maximize efficient spectrum utilization. The local advisors provide a keen understanding of local needs, public safety

the committees, providing invaluable technical support and knowledge of local frequency use. Most importantly, the local advisors provide access to the APCO database (which is updated daily) and to additional technical expertise from the APCO frequency coordination department. The advisors also have the benefit of computer equipment, engineering programs and other resources provided to them at APCO's expense. Assistance from local advisors will be even more critical in the 746-806 MHz band, where 24 MHz will be assigned, 4 times the amount of spectrum currently subject to regional planning.

Another critical element of regional planning is the creation and maintenance of an ongoing database of all regional plans. The database needs to be current and readily accessible to regional committees and the general public throughout their planning process. The Commission's license database is inadequate for this purpose as it only records actual license applications, and therefore would be insufficient to keep track of channel allotments and pre-application frequency assignments within each region.

Each region also needs to have access to plans and data from adjacent regions. This will be particularly important in the 746-806 MHz band where there are likely to be large, consolidated systems that may cover an entire region (or regions). For example, since most of the current regions consist of one state, a state-wide radio system is likely to impact spectrum utilization in several adjoining regions.

Maintaining a separate and unique regional planning database will be costly and time consuming. If the Commission is unwilling to assume the responsibility for the

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operations, and spectrum utilization. APCO provides each advisor with computer equipment, network connections to APCO headquarters, engineering programs, reimbursement of coordination related expenses, and training at APCO's annual conference and throughout the year.

database, then it must be done by others. The only logical candidate is the frequency coordinator. As discussed below, APCO is prepared to assume that responsibility under certain conditions.

Equally important for the regional planning committees is for there to be a source of funding for basic operating expenses and activities. Committees have not had any financial resources of their own in the past and were forced to depend upon the willingness of individual public safety agencies and/or local APCO chapters to provide for essential resources, including travel, stationery, computers, telephone charges, photocopies, etc. Without some basic financial support, it will be extremely difficult for regional committees to operate quickly and efficiently, if at all, considering the enormity of the task of planning the use of 24 MHz of spectrum.

C. APCO is Able to Provide Necessary Support for Regional Planning and Should be Designated as Coordinator for 746-806 MHz Public Safety Spectrum.

APCO is prepared to address and respond to the critical requirements of a successful regional planning process. APCO's network of local frequency advisors and its national frequency coordination facilities will provide detailed technical support to the planning committees from the very beginning of their deliberations. APCO will also maintain a common database for ongoing use by the regional committees and make it available through the Internet, itself a major task that will consume considerable time and resources. In addition, APCO has tentatively agreed to provide reasonable direct financial support for regional planning activities. However, APCO's ability to provide this level of technical, organizational, and financial support is contingent upon it being able to recover

the cost of that support through frequency coordination fees, its only source of funding for spectrum management activities. Therefore, it is essential for APCO to be designated as frequency coordinator for the newly allocated spectrum.

APCO is currently the sole coordinator for the 800 MHz public safety pools, including the 821 MHz band which is subject to a regional planning process. APCO is thus the only coordinator with experience in working with regional planning and in coordinating spectrum for wide-area, multi-agency systems in the 800 MHz band. Moreover, no other coordinator has APCO's broad membership base which includes all aspects of public safety communications, including police, fire, EMS, forestry conservation, highway maintenance and other services. As with 800 MHz systems, many of the new 746-806 MH systems are likely to be trunked operations that encompass many if not all of these various services. APCO is also the only coordinator with a network of local frequency advisors in each of the public safety planning regions. Finally, as noted above, APCO is willing and able to provide the advance technical, financial, and organizational support necessary for regional planning to succeed.

Some of the other public safety coordinators are likely to argue that the 746-806 MHz band should be open to multiple coordinators, similar to the Local Government channels below 470 MHz. Such "competition" sounds good in theory. The reality would be quite different, however. Unlike the Local Government channels, the 746-806 MHz band is expected to be subject to detailed regional planning involving close cooperation between the coordinator, its local advisors, and the regional planning committees. APCO is prepared to provide that participation, and much more in the form of technical

and financial support. Other coordinators are unlikely to be willing or able to provide that level of advance support due to their limited size and resources.

While APCO is prepared to dedicate time and resources to the planning process, it will not be able to do so if it cannot recover those costs through frequency coordination fees. That will be difficult, however, if there are competing coordinators that do not provide the same level of support and, therefore, are likely to have lower coordination fees than APCO. While applicants would be wise to use the coordinator that is most involved in the planning process (as compliance with the plan will be a key coordination criterion), they may be required by law to use the lowest priced coordinator. That could leave APCO "holding the bag" for the cost of regional planning.

APCO is sensitive to the special role of the other coordinators and their special knowledge of each of the public safety services, and is open to developing procedures that would preserve their role. APCO, a non-profit membership organization, has no desire to exclude other organizations from the process and is not requesting to be the sole coordinator as a means to gaining any special financial or other advantage. Rather, it seeks a coordination and planning process which will best serve all public safety users. If other reasonable forms of funding and support for regional planning can be identified, then perhaps a system of multiple coordinators can be devised. At this time, however, no such reasonable alternatives are readily apparent.

II. INTEROPERABILITY

A. The Commission Overestimates Interoperability Spectrum Requirements.

The Commission's Second Notice places considerable weight on the importance of interoperability, and recommends that a "significant amount" of the 24 MHz be assigned for "solely for interoperability communications." Second Notice at ¶44. It is not clear what the Commission means by "a significant amount" or, for that matter, how it is defining "interoperability" in this context. If the Commission means that much of the spectrum in the 746-806 MHz band should be assigned in a manner that promotes interoperability (*e.g.*, encouraging multi-agency systems, interoperable technical rules, and flexible assignments), then APCO agrees.

However, if (as it appears) the Commission is suggesting that a large percentage of this band should be available only for "interoperable communications," and not for communications among personnel within the same public safety agency, then APCO strongly disagrees. APCO supports the channel plan presented in the NPSTC comments which is consistent with the PSWAC recommendations and allots approximately ten percent of the 24 MHz for dedicated interoperability use. In addition, the Commission and the relevant planning committees need to establish rules and procedures that promote interoperability wherever appropriate. However, dedicating huge amounts of spectrum for interoperability (*i.e.*, inter-agency) communications alone would deprive public safety agencies of spectrum needed to permit day-to-day internal communications. Most of the 24 MHz must be available primarily for intra-agency communication requirements, which constitutes the bulk of public safety communications and emergency response activity.

The PSWAC recommendation was for 25 MHz to be allocated in the 746-806 MHz band to address immediate spectrum requirements, especially spectrum congestion and the need to implement new public safety communication technologies. The studies that led to the PSWAC spectrum allocation recommendations examined sheer volume and content (*i.e.*, voice, data, images) of current and future public safety radio communications.[3] There was never a finding that anything close to 25 MHz is necessary for interoperability alone. To the contrary, PSWAC recommended an allocation of 2.5 MHz for interoperability below 512 MHz.

The 746-806 MHz band does have an important role to play in improving interoperability, in part by making spectrum available to develop wide area, multi-agency systems. New 746-806 MHz equipment should also be interoperable with current 800 MHz public safety systems. In addition, as recommended by NPSTC, some spectrum in the band (approximately 2 MHz) should be set aside for interoperability purposes only. However, allocating a "significant amount" of the 24 MHz is too much, and would reduce the quantity of spectrum needed for day-to-day operations that protect the safety of life and property. In addition, no amount of interoperability spectrum in the 746-806 MHz band will provide interoperability with public safety systems operating at 150-170 MHz and 450-512 MHz.

B. Interoperability Standards

APCO, the National Association of State Telecommunications Directors, and various agencies of the federal government recognized long ago that interoperability

[3] See PSWAC Spectrum Requirements Subcommittee Final Report, Appendix D, PSWAC Report Vol. II, pages 601-645.

standards would be essential in the digital world, and thus initiated a process known as Project 25 to develop such standards in conjunction with the Telecommunications Industry Association. Project 25's goal was, and is, to develop a standard that meets user defined requirements and is available in a competitive marketplace from multiple vendors. In the past, two companies dominated the public safety equipment market, with a predictable impact on price and product availability. To stimulate competition, Project 25 requires holders of intellectual property rights essential for compliance with Project 25 to license their technology to others on "fair and reasonable" terms. That has already resulted in new entrants into the public safety equipment marketplace, and a potential for far greater competition than existed in the past.

APCO joins enthusiastically with NPSTC in supporting adoption of the first element of the Project 25 process, the Project 25 Phase I (12.5 kHz FDMA) common air interface, as the digital baseline for interoperability in the 746-806 MHz band. This digital baseline must be included as one of the digital operating modes in all new public safety subscriber radio equipment type-accepted for use in the 746-806 MHz (in other words, multi-mode equipment should be permitted). Our support for Project 25 is based on the following:

1. There is no other public safety standard available today which meets the specific needs of public safety users in the United States. The Trans-European Trunked Radio (TETRA) Standard was developed in Europe by European users and manufacturers to meet specific demographic, operating, and technical requirements found in the primarily dense population centers of Europe. TETRA's potential applicability in the

U.S. is largely limited to similar densely populated pockets.

2. Project 25 infrastructure and subscriber units are both available for procurement today from multiple suppliers at prices which are competitive with other digital alternatives.

3. Users and manufacturers have devoted an estimated 750,000 man-hours to the development of Project 25. With Project 25 now accepted by a large majority of both the public safety user and manufacturing communities, there is no reason to believe that these agencies and organizations would make another similar commitments of time and funding to develop another similar standard. Such participation is the only way that a new standard could be developed that would receive similar support.

4. The Project 25 Phase I standards suite was developed in an open standards process under the auspices of the Telecommunications Industry Association (TIA). Most documents included in this suite are published as TIA Technical Service Bulletins, TIA Interim Standards or TIA Standards. The federal government has formally recognized the Project 25 Phase I suite as applicable to federal procurements.

5. Project 25 has publicly demonstrated infrastructure-based interoperability using equipment operating in different bands and supplied by multiple vendors.

The Commission additionally concludes in paragraph 57 that a technical standard will have to be developed for data channels. APCO notes that Project 25 Phase I includes a fully developed standard for data transmission in 12.5 kHz channels.

Finally, APCO notes that, in late 1996, the PSWAC Interoperability Subcommitttee concluded that "it is imperative that this [digital] baseline be addressed and established within the next two years, to allow the public safety community to develop implementation and migration plans accordingly."[4] By the time this NPRM is finalized, this two-year period will be at hand. These and other related issues are discussed in further detail in the separate comments of NPSTC and the Project 25 Steering Committee.

III. DEFINITION OF PUBLIC SAFETY

The Commission seeks comments in the Second Notice regarding the definition of "public safety services" for purposes of eligibility to hold licenses in the 746-806 MHz public safety spectrum. This is a critical issue as the amount of spectrum to be allocated, while substantial, is still a scarce commodity and must be assigned carefully to ensure that those with the greatest needs are the first to obtain use of the spectrum.[5] The Public Safety Wireless Advisory Committee spent considerable time debating and developing definitions of public safety, public safety services, public safety services provider, and public safety support provider. PSWAC Final Report, at 45. APCO continues to support those definitions, and urges that the Commission use those definitions to the extent possible and consistent with relevant statutory provisions.

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[4] PSWAC Final Report, Volume II, Appendix C, Section 7.4.4 (page 318).

[5] This is particularly true in the near term because (a) there is considerable built-up up demand by public safety agencies, and (b) until broadcasters vacate channels 60-69, much less than 24 MHz will be available in many of the areas that face the most severe spectrum congestion.

As the Commission notes in the Second Notice, Congress included a definition of "public safety services" in the Balanced Budget Act of 1997 which is similar, but not identical to the PSWAC definitions. In the PSWAC report, "Public Safety Services" are "Those services rendered by or through Federal, State, or Local government entities in support of Public Safety duties" and "Public Safety" is defined as "the public's right, exercised through Federal, State or Local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare." Thus, under the PSWAC definition, most governmental activities would be defined as public safety services.

The Balanced Budget Act defines "public safety services" to mean services:

> (A) the sole or principal purpose of which is to protect the safety of life, health, or property;
>
> (B) that are provided—
>
> (i) by State or local government entities; or
>
> (ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and
>
> (C) that are not made commercially available to the public by the provider.

To implement this provision, the Commission proposes to define "Public Safety Service Provider":

> (1) a State or local government entity that provides public safety services; or (b) a non-governmental organization that is authorized to provide public safety services by a government entity pursuant to Section 337(f)(1)(B)(ii) of the Communications Act.

APCO agrees that this proposed definition reflects the relevant statutory provisions. In particular, non-governmental organizations are considered public safety service providers only where they are providing "public safety services," i.e., their "sole or principal purpose" is to "protect the safety of life, health or property." That properly excludes commercial entities that simply provide communications or other ancillary services to public safety agencies. Potentially included in the definition would be volunteer fire departments, disaster relief organizations, and others that have express government authorization to provide public safety services directly to the public. In most instances, public safety service providers would not include for-profit enterprises, which obviously have profit, not the protection of the safety of life, health or property, as their sole or principal purpose.[6]

APCO agrees with the Commission's suggestion that regional planning committees should have the responsibility in the first instance to determine whether an entity qualifies as a public safety service provider and, more importantly, how spectrum should be allotted among such entities. Otherwise, the Commission will be drawn into endless disputes regarding the degree to which a particular entity protects public safety. While that will not be an easy determination for regional committees either, they are in a far better position than the Commission to judge the role various entities play and their relative spectrum requirements.

[6] In some instances, it may be appropriate for regional committees to allow certain for-profit entities that are critical to emergency response activities to have access (but not be actual licensees) to interoperability channels.

IV. INTERFERENCE PROTECTION BETWEEN TELEVISION STATIONS AND PUBLIC SAFETY USERS OF THE 746-806 MHz BAND.

In formulating the protection standards to be accorded incumbent NTSC and interim DTV allotments in the new public safety band during the transition period, the various technical issues involved must be resolved under the guiding principle that by statute the reallocation of spectrum for public safety services must be completed by December 31, 1997, and that the Commission "commence assignment of licenses" by September 30, 1998. Obviously, both incumbent and interim broadcast use of the band must be adequately protected from potential interference during the transition period. By the same token, however, §3004 of the Budget Act of 1997 requires that the precise technical standards be carefully fashioned so as to maximize the ability of public safety agencies to make immediate use of the band wherever possible. To this end, APCO urges that the Commission proceed to fashion specific protection standards based on the following three governing principles.

First, the basic signal protection ratio used in the development of specific protection standards must be as realistic as possible, taking into account current technological information and differences in signal propagation between the 470-512 MHz and 746-806 MHz bands. While the Notice proposes to adopt the current 40 dB D/U signal ratio standard currently specified for certain metropolitan areas in the 470-512 MHz shared band, APCO believes that a significantly lower signal ratio requirement is technically feasible with no danger of any adverse effect on existing NTSC broadcast service. Two factors, in particular, need to be considered in the calculation of the

optimum signal protection ratio. One, the difference in propagation characteristics between the two bands is substantial. Signal propagation in the 746-806 MHz band is subject to much greater loss than in the 470-512 MHz band, meaning that a lower protection ratio is possible. Two, the estimation of the current 40 dB protection ratio in Docket 18261 over thirty years ago assumed certain TV receiving antenna characteristics (the so called front-to-back ratio) which are now generally conceded to be overly conservative. Taking just these two factors into account, APCO understands that an adjustment of over 20 dB, in addition to the 40 dB protection ratio, would be possible on a conservative basis with no danger of interference to existing TV service. The benefit in terms of increased public safety use of spectrum near existing NTSC channels would be substantial. It has been estimated, for example, that the current co-channel separation distances of from 90 to 130 miles in the 470-512 MHz band could be reduced in the new 746-806 band to a more limited range of from 65 to 90 miles. The ability of the Commission to achieve such reductions, particularly in spectrum crowded areas, must be carefully and fully evaluated by the Commission in order to achieve maximum public safety utilization of allocated spectrum to public safety during the transition period.

Second, with respect to new interim DTV station allotments, it must be recognized that the Commission has greater flexibility at this point in determining appropriate protection ratios, particularly with respect to the adjacent channel interference problem. Quantification of particular protection ratios at this point is difficult as little actual experience is available with respect to the operation of DTV stations. It is apparent, however, that DTV signals will be less susceptible to interference because of lower required carrier to interference ratios. Moreover, as DTV receivers are still in the design

stage, it is possible to set standards now requiring stringent adjacent channel discrimination capabilities in order to maximize the utilization of adjacent channels by other services. Also with regard to DTV stations, the Commission should limit protection of DTV stations in channels 60-69 based on their actual power and coverage, not the maximum permitted. Since DTV stations on channels 60-69 are temporary, such stations may choose to minimize costs by constructing and operating well below maximum levels. APCO urges the Commission to proceed, with these considerations in mind, to develop the most spectrum efficient DTV service technically possible, both for the benefit of the broadcasters and of other users of the spectrum.

Third, while the use of geographical distance tables to determine appropriate broadcast-public safety station separations is an appropriate tool, generally, to guide the licensing process, it should not be the exclusive basis for the licensing of new public safety systems. Rather, as suggested by the Commission in the Second Notice (¶238-239), prospective public safety systems should have the option to demonstrate compliance with fundamental interference protection criteria based either upon normal geographic separation tables or compliance with basic D/U signal ratio protection requirements. As recognized in the earlier UHF Sharing Proceeding, the latter option is an appropriate methodology for ensuring the maximum utilization of the spectrum without any additional danger of interference to existing NTSC or new DTV broadcast service.

V. PRIORITY ACCESS SERVICE

Over APCO's objections, the Commission continues to consider Cellular Priority Access Service (CPAS) as part of this proceeding and included it as part of the Second Notice. Yet, there is little, if any relationship between CPAS and the "private wireless" issues concerning the allocation and use of 24 MHz for public safety use in the 746-806 MHz band. The only relevance is whether such an allocation diminishes the importance of CPAS. However, the actual implementation of CPAS, if it proceeds, needs to be in a separate proceeding where it will not complicate and overburden this proceeding with unrelated pleadings. The Commission is under a statutory direction and deadline regarding the 24 MHz being allocated for public safety, and it should not be distracted in this proceeding by CPAS or other unrelated issues.

As to the substance of CPAS, APCO will merely comment at this time that CPAS could be very beneficial, notwithstanding additional spectrum allocations for public safety. In particular, CPAS could be useful in organizing relief activities in the days and weeks following emergencies. Of course, the "first response" and the responses immediately thereafter are and will continue to be through dedicated public safety radio systems. The Commission notes that numerous issues have arisen regarding the effectiveness of CPAS, and the specific rules proposed by the National Communications System. However, APCO's need to focus on the spectrum related aspects of this proceeding have prevented it from addressing those issues at this time.

CONCLUSION

APCO urges the Commission to proceed quickly, but carefully, to adopt rules for the assignment and use of 24 MHz in the 746-806 MHz band consistent with the recommendations set forth above and in the comments of NPSTC.

Respectfully submitted,

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December 24, 1997

Doc #69722 (previously 68640)